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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/846,452

04/30/2001

Han C. Wen

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11/01/2004

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EXAMINER

DUONG, DUC T

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,452

Applicant(s)

WEN ET AL.

Examiner

Duc T. Duong

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 10, 12, 13, 15, 16 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 6-8, 11, 14, 17-19, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The application serial number and its corresponding patent on pages 10 and 16-17 needed to be updated. On page 19, there is a portion of the text missing.

Appropriate correction is required.

Claim Objections

2. Claims 2, 13, and 23 are objected to because of the following informalities: It is unclear as to what is meant by "modulating inter-packet bandwidths". While applicant may be his own lexicographer, selected terminology must be clear no term may be given a meaning repugnant to the usual meaning of the term. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-5, 9, 10, 12, 13, 15, 16, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Aoki et al (U.S. Patent 6,757,255 B1).

Regarding to claim 1, Aoki discloses a method (Fig. 12), comprising applying predictions of congestion conditions (obtaining a round trip time RTT) for a traffic stream (TCP) in a communication network to modify an initial congestion window size for the traffic stream (col. 11 lines 29-33); and applying dynamic bandwidth control (calculating an effective bandwidth) to the traffic stream (col. 11 lines 33-37).

Regarding to claims 9 and 20, Aoki discloses a communication network 1 (Fig. 1 col. 6 lines 5-7) comprising one or more communication paths (Fig. 1 col. 6 lines 17-20) between one or more content sources 16-18 and one or more clients 16-18 (Fig. 1 col. 6 lines 12-16), at least one of the communication paths including a control node 2 (Fig. 2 col. 6 lines 25-33) configured to set an initial congestion window for a traffic stream (TCP) transmitted over the at least one communication path according to predicted congestion conditions (a round trip time RTT) for that traffic stream (Fig. 12 col. 11 lines 29-33) and to rate limit the traffic stream (calculating an effective bandwidth) to an effective bandwidth associated with a potentially congested bottleneck in the at least one communication path over which the traffic stream is transmitted (Fig. 12 col. 11 lines 33-37).

Regarding to claim 2, Aoki discloses the dynamic bandwidth control comprises modulating inter-packet bandwidths (calculating the effective bandwidth or transfer

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speed) of the traffic stream according to a capacity (number of transmitted packets/time expended for transmission) of a bottleneck in a communication path through which the traffic stream passes in the communication network (Fig. 13 col. 15 lines 11-35).

Regarding to claims 3 and 15, Aoki discloses the predictions of congestion conditions are based on one of monitoring packet losses within the communication network (col. 10 lines 19-36) or monitoring packet round trip time in the communication network (col. 8 lines 45-65).

Regarding to claim 4, Aoki discloses the monitoring is performed on at least one of a traffic stream-by traffic stream basis, a connection-by-connection basis, a link-by-link basis, or a destination-by-destination basis (Fig. 3 col. 6 lines 47-55).

Regarding to claims 5 and 16, Aoki discloses the monitoring is performed for a period between 0 and 100 seconds (Fig. 10; noted the difference between the session start time and the session end time correspond to a period between 0 to 100 seconds).

Regarding to claims 10 and 21 the control node is configured to rate limit the traffic stream by setting a minimum time spacing (a sliding window is uses to establishes the spacing time) between packets within the traffic stream (col. 14 lines 34-43).

Regarding to claims 12 and 22, Aoki discloses the control node is configured to rate limit the traffic stream by setting the effective bandwidth BW equal to a maximum transfer rate (number of transmitted packets/time expended for transmission) allowed by the potentially congested bottleneck in the communication path (Fig. 13 col. 15 lines 11-35).

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Regarding to claims 13 and 23, Aoki discloses the control node is configured to rate limit the traffic stream by applying a feedback (echo packet) control process to modulate inter-packet bandwidths in the traffic stream (Fig. 12 col. 11 lines 21-29).

Allowable Subject Matter

5. Claims 6-8, 11, 14, 17-19, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-Th (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD



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